

REMARKS

Applicant respectfully requests reconsideration of the instant application on the basis of newly amended Claims 1 and 13. Claims 1 and 13 are the main, independent claims and the remaining claims are directly or indirectly dependent upon those.

The Examiner has rejected the claims as being unpatentable over U.S. Patent No. 2,508,659 by Brown (*Brown*) and Applicant's Specification in view of U.S. Patent No. 5,720,309 by Brown (*Baziuk*) and others. It is believed that Claims 1 to 16 are clearly distinguishable over these references for the reasons that will be set forth.

Support for the amendment of Claims 1 and 13 is found in the specification, paragraphs [0028] to [0031] and others.

The *Brown* reference describes a known type of cleaning kite that is useful for sewer systems or other tubular systems having a comparatively smaller interior diameter. A conical member 15 made of a flexible material is internally unsupported between the two ends since the ribs 14 extended "over" the canvas material. A series of apertures or holes 17 through which the cleaning fluid passes form jets. (col. 2, lines 2-40)

The *Baziuk* reference describes a cleaning nozzle that attaches to the end of a feed pipe or hose 17 that supplies a cleaning solution to the head portion 11.

35 U.S.C. § 102(b) Grounds for Rejection

The Examiner has principally rejected the claims as being anticipated by *Brown*. It is believed that Claims 1 to 16 are clearly distinguishable over this *Brown* reference for the reasons that will be set forth.

Independent Claim 1 recites the following elements, the most pertinent to this discussion being presented in bold type for the convenience of the Examiner:

1. A large scale cleaning plug adaptable to be placed within an interior passageway of a tubular system for containing a fluid, the plug comprising:

a generally conically shaped element having a first end and an opposite second end; said first end and said second end having a width selected to fit within the interior passageway of the tubular system;

securing means connected to the conical element in proximity to the first end for controllably securing the conical element in desired positions within the interior passageway; and,

a nozzle assembly mounted with the second end of the conical element; said **nozzle assembly having a plurality of nozzle bodies extending from a plate** preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid **through an exit opening of the nozzle bodies**.

Since such nozzle bodies extending from a plate of the Applicant's invention as claimed are not disclosed or suggested by *Brown*, Applicant suggests that the claimed structure of the present invention is neither identical to nor disclosed by the *Brown* device. Therefore, *Brown* cannot anticipate the present claimed invention.

Moreover, the allegedly prior art devices lack the functional characteristics of the claimed structure of the method claim in the present application. *Brown* and other known prior cleaning plugs or kites work optimally when the entire interior of the pipe was flooded or filled with the liquid. This optimal situation is not always feasible defeating the effectiveness of the known cleaning plugs or kites, which limitation is believed to be overcome by Applicant's invention.

Even if the *Brown* patent incidentally showed a similar arrangement of parts, if that arrangement is neither claimed nor designed to perform the function of the present invention, the cited patent can not act as an anticipation.

35 U.S.C. § 103 Grounds for Rejection

The Examiner has also rejected the claims under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Specification in view of *Baziuk*. Applicant respectfully traverses these rejections for the reasons discussed below.

Applicant's invention is directed toward solving the disadvantage that the prior cleaning plugs or kites work optimally when the entire interior of the pipe was flooded or filled with the liquid. However, this optimal situation is not always feasible defeating the effectiveness of the known cleaning plugs or kites and Applicant's invention is addressed to solve this problem.

The purpose of the *Baziuk* cleaning nozzle device is to receive a cleaning fluid supplied through a hose 11 to produce a high pressure spray of the cleaning fluid. (col. 4, lines 29-56). Thus, the cleaning fluid cleaning nozzle of *Baziuk* and the present invention that uses the fluid flowing within the pipe system ahead of the plug unit have different functions, and one of ordinary skill in the art would not have been motivated to substitute the jet nozzle 27 of *Baziuk* that produces a stream of cleaning fluid in the direction of the source supply hose (in other words in a direction opposite to the direction of flow of the cleaning fluid being introduced into the cleaning head 11) with Applicant's "nozzle assembly having a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies." It is noted that

Baziuk has a plurality of jet nozzles 27, but does not point out that the output stream from the jet nozzles in the direction of the fluid flow through the hose 17, thus it implicitly teaches away from doing so.

Even if one was to insert (and there is no suggestion of doing so in either *Brown*, *Baziuk* or other cited prior art) in *Brown's* cleaning device, the direction of fluid flow exiting the nozzles would point in a direction opposite to the direction of relative flow of fluid through the tubular system.

By this structure Applicant is able to achieve the advantages which have hitherto not been achievable through any adaptation of the prior art. It is therefore believed to be clear that the particular structure of Applicant is extremely important and is not a mere matter of design. It should also be noted that the *Brown* reference has been available since 1950 and the *Baziuk* reference has been available since 1998. Between that time and the present, no one except Applicant has constructed a large diameter storm sewer cleaning system without the disadvantages discussed above and which are clearly set forth on the first few pages of Applicant's specification. It is certainly believed to be pertinent that no-one has achieved or anticipated Applicant's structure despite the availability of the reference.

It is improper to use hindsight having read the Applicant's disclosure to "pick and choose" among isolated prior art references to disparage the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Even where an invention is, as a whole, fully disclosed by a combination of prior art elements, such elements cannot be combined to defeat a patent as obvious unless the art teaches or suggests the desirability of making the combination. ASC Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). Thus, the mere fact that the prior art may be modified in the manner suggested by the

Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, U.S.P.Q.2d 1780 (Fed. Cir. 1992). Finally, it is the invention as a whole that is important. Focusing on the obviousness of substitutions and differences, instead of on the invention as a whole, is a legally improper way to simplify the often difficult determination of obviousness. Gillette Co. v. S. C Johnson & Son, Inc., 919 F. 2d 720, 16 U.S.P.Q. 1923 (Fed. Cir. 1990).

Independent Claim 1, as amended, recites the following elements, the most pertinent to this discussion being presented in bold type for the convenience of the Examiner:

1. A large scale cleaning plug adaptable to be placed within an interior passageway of a tubular system for containing a fluid, the plug comprising:

a generally conically shaped element having a first end and an opposite second end; said first end and said second end having a width selected to fit within the interior passageway of the tubular system;

securing means connected to the conical element in proximity to the first end for controllably securing the conical element in desired positions within the interior passageway; and,

a nozzle assembly mounted with the second end of the conical element; said nozzle assembly having a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and **permitting a desired fluid flow of the tubular system fluid** through an exit opening of the nozzle bodies.

Applicant respectfully submits that the combination of Applicant's Specification with *Baziuk* does not disclose, teach, or suggest a "nozzle assembly having a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows

relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies" as recited by amended Claim 1 or 13. Even if *Baziuk* could be combined with *Brown*, or the prior art of Applicant's Specification, the combination provides no teaching of "a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies." Therefore, Claims 1 or 13 is not obvious in light of the cited art and Applicant respectfully submits that this rejection should now be withdrawn.

Dependent Claims 2-12 and 14-16 that depend from independent Claim 1 or 13 are also not made obvious by the Applicant's Specification in view of *Baziuk* or others because they include the limitations of Claim 1 or 13 and add additional elements that further distinguish the art. Therefore, Applicant respectfully requests that Claims 1-16 be allowed.

Finally, in order to establish a prima facie case of obviousness, the prior art teachings must be sufficient to suggest making the substitution or modification necessary to make the claimed invention to one of ordinary skill in the art, In re Lahu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984), in the absence of applicant's own disclosure. See also, In re Laskowski, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398-99 (Fed. Cir. 1989) and Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985). The motivation to make a specific structure

"is not abstract, but practical, and is always related to the properties or uses one skilled in the art would expect the [structure] to have, if made."

In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979). See also Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1556, 225 USPQ 26, 31 (Fed. Cir. 1985) ("Critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and, thus, the obviousness, of making the combination'").

There must have been a reason apparent at the time the invention was made to a person of ordinary skill in the art for applying the teachings at hand to effect the modification necessary to reach the claimed invention in the manner proposed or the use of the teaching as evidence of obviousness will entail prohibited hindsight. Graham v. John Deere of Kansas City, 383 U.S. 1, 148 USPQ 459 (1966), and In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975).

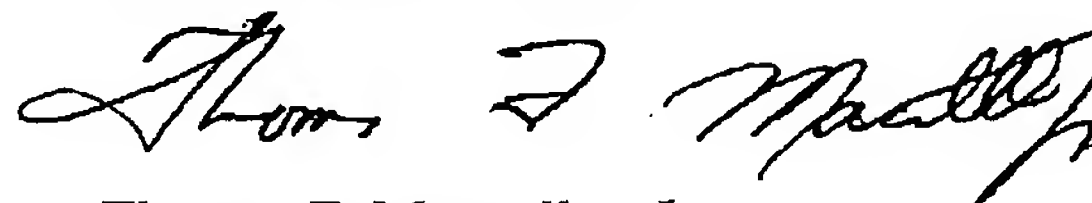
Here there is lacking the requisite suggestion in these prior art disclosures that would have motivated the artisan to do what the Examiner has characterized as being an obvious combination.

Conclusion

Applicant has now made an earnest attempt to place this case in condition for allowance. In light of the amendments and remarks set forth above, Applicant respectfully requests reconsideration and allowance of Claims 1-16.

If there are matters which can be discussed by telephone to further the prosecution of this Application, Applicant invites the Examiner to call the attorney at the number listed below at the Examiner's convenience.

Respectfully submitted,



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ATTACHMENT A

LISTING OF CLAIMS WITH MARKINGS TO SHOW CHANGES MADE

Attachment A
Listing with Markings
11

1. (Currently Amended) A large scale cleaning plug adaptable to be placed within an interior passageway of a tubular system for containing a fluid, the plug comprising:

a generally conically shaped element having a first end and an opposite second end; said first end and said second end having a width selected to fit within the interior passageway of the tubular system;

securing means connected to the conical element in proximity to the first end for controllably securing the conical element in desired positions within the interior passageway; and,

a nozzle assembly mounted with the second end of the conical element; said nozzle assembly having a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies.

2. (Original) The invention of claim 1 in which the conical element is formed having an exterior shell composed of a flexible material.

3. (Original) The invention of claim 1 wherein the conical element includes an exterior shell of a treated canvas material.

4. (Original) The invention of claim 1 wherein the conical element is formed having an exterior shell composed of a material essentially impervious to the fluid flow.

5. (Original) The invention of claim 1 further including a substantially rigid frame body formed with the first end to maintain the first end in an open position permitting fluid flow into the first end of the conical element.

6. (Original) The invention of claim 1 wherein the second end has a truncated ending permitting fluid flow therethrough.

7. (Original) The invention of claim 1 wherein the nozzle bodies are comprise generally frustoconical shaped members extending from the plate preventing appreciable fluid flow therethrough and pcrmitting a desired fluid flow through an exit opening of the frustoconical shaped members.

8. (Original) The invention of claim 1 wherein the nozzle bodies include a check valve.

9. (Original) The invention of claim 1 wherein the nozzle bodies are composed of rubber.

10. (Original) The invention of claim 1 wherein the cleaning plug consists of lightweight materials suitable for cleaning an interior of an air duct system.

11. (Original) The invention of claim 1 wherein the second end having a width less than the width of the first end.

12. (Original) The invention of claim 1 wherein the nozzle assembly is pivotally mounted to the conical element.

13. (Currently Amended) An improved cleaning plug adaptable to be placed within an interior passageway of a tubular system for containing a fluid of the type that includes a generally conically shaped element having a first end and an opposite second end, the first end and second end having a width selected to fit within the interior passageway of the tubular system, and securing means connected to the conical element in proximity to the first end for controllably securing the conical element in desired positions within the interior passageway, the improvement comprising:

a nozzle assembly mounted with the second end of the conical element; said nozzle assembly having a plurality of nozzle bodies extending from a plate preventing appreciable fluid flow therethrough as the fluid flows relative to the first end of the conical element and toward the second end and permitting a desired fluid flow of the tubular system fluid through an exit opening of the nozzle bodies.

14. (Original) The invention of claim 13 wherein the nozzle bodies have a truncated ending permitting fluid flow therethrough.

15. (Original) The invention of claim 13 wherein the nozzle bodies are composed of rubber.

16. (Original) The invention of claim 13 wherein the nozzle assembly is pivotally mounted to the conical element.